

CURRENT SENSE APPARATUS AND METHOD USING A COMBINATION OF A SIMULATION AND A REAL SENSE FOR A SWITCHING MODE POWER CONVERTER

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ABSTRACT OF THE DISCLOSURE

10 In a switching mode DC-to-DC power converter
including a high-side transistor connected between an input
voltage and an output node, a low-side transistor connected
between the output node and a reference potential, and an
inductor connected to the output node to derive an output
15 voltage and an output current, a current sense apparatus and
method employs a ramp signal generator to generate a ramp
signal with a slope proportional to the difference between the
input and output voltages, a DC signal generator to generate a
DC signal proportional to the DC component of the current
20 through the low-side transistor, and a summing circuit for
combining the ramp and DC signals.